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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/492,373

01/27/2000

Yuzo Horikoshi

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10/06/2005

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/492,373

Applicant(s)

HORIKOSHI ET AL.

Examiner

Callie E. Shosho

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1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/20/05 & 7/15/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-10,14-17 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-10,14-17 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendments filed 6/20/05 and 7/15/05.

The new grounds of rejection set forth below are necessitated by applicants' amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 4, 6-10, 14-17, and 20-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(a) Claims 1, 14, 16, and 17 have each been amended to recite that the polymer is obtained from 10 through 80 wt.% alkyl acrylate, alkyl methacrylate, "substituted or unsubstituted acrylate, or substituted or unsubstituted alkyl methacrylate". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the above cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the above amendment, applicants point to Table 1 of the present specification. However, Table 1 only discloses the use of butyl acrylate, ethylhexyl acrylate, and lauryl methacrylate which do not appear to contain any substituents. Applicants note that the substituents can be hydroxyl, amino, and ammonium groups, however, examiner has not found support for such recitation with respect to the alkyl (meth)acrylates. Clarification is requested. Further, it is noted that there is no support in Table 1 for the broad recitation of “substituted or unsubstituted acrylate” given that all the acrylates disclosed are alkyl acrylates. Should “acrylate” be changed to “alkyl acrylate” in the cited phrase?

Additionally, it is noted that even if there is a description in the specification as originally filed of alkyl (meth)acrylates substituted with hydroxyl, amino, or ammonium groups, while this would provide support for the recitation in the present claims for substitution with these 3 specific groups, this would not provide support for the broad recitation in the present claims of substituted acrylate and substituted alkyl methacrylate.

(b) Claims 1, 14, 16, 17, and 20 have each been amended to recite “wherein said colorant is dissolved or dispersed in said copolymer particles or dispersed in said solvent with said copolymer particles by absorption on or coating a surface of said copolymer particles, but said colorant is not dissolved in the solvent”. It is the examiner’s position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the above cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

As support for the above amendment, applicants point to present claims 6-8. However, while these claims provide support to recite that the colorant is dissolved or dispersed in the copolymer or the colorant is absorbed on or coating a surface of said copolymer or the colorant is dispersed in said solvent and page 4, lines 8-9 of the present specification provides support for the recitation that the colorant is not dissolved in the solvent, there is no support either in the claims or the present specification to recite that "the colorant is dispersed in said solvent with said copolymer particles by absorption on or coating a surface of said copolymer particles". That is, while there is support for the recitation that the colorant is dispersed in the solvent or the colorant is absorbed on or coating a surface of the copolymer, there is no support to recite that the dispersion of the colorant in the solvent is due to absorption on or coating of copolymer surface with the colorant.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 4, 6-10, 14-17, and 20-25 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 1, 14, 16, and 17 each recite that the copolymer is obtained from 10 though 80 wt.% alkyl acrylate, alkyl methacrylate, "substituted or unsubstituted acrylate, or substituted or unsubstituted alkyl methacrylate". The scope of the claim is confusing because it is not clear

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what the difference is, if any, between alkyl methacrylate and unsubstituted alkyl methacrylate.

Clarification is requested.

(b) Claim 8, which depends on claim 1, recites that the colorant is dissolved or dispersed in said solvent while claim 1 recites that the colorant is not dissolved in said solvent. Thus, the scope of claim 8 is confusing because it is not clear what is being claimed a colorant dissolved in the solvent or a colorant not dissolved in the solvent. Clarification is requested.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 4, 6-10, 14-17, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (U.S. 6,248,805) in view of Patel et al. (U.S. 5,977,210) and Fujisawa et al. (U.S. 5,997,136).

The rejection is adequately set forth in paragraph 7 of the office action mailed 1/18/05 and is incorporated here by reference.

Additionally, it is noted that col. 10, line 66 of Nguyen et al. disclose that the copolymer is also obtained from vinyl pyridine.

Response to Arguments

8. Applicants arguments filed 6/20/05 have been fully considered but they are not persuasive.

Specifically, applicants argue that Nguyen et al. is no longer a relevant reference against the present claims given that there is no disclosure in Nguyen et al. that the colorant is dissolved or dispersed in said copolymer particles or dispersed in said solvent with said copolymer particles by absorption on or coating a surface of said copolymer particles, but said colorant is not dissolved in the solvent as now required in all the present claims.

However, given that Nguyen et al. disclose the use of pigment or water-soluble or water-insoluble dye (col.19, line 62 and col.20, line 42), it is clear that the colorant will not dissolve in the solvent. Further, col.5, lines 19-20 and col.26, line 65-col.27, line 8 discloses that the colorant is dispersed in the copolymer. Additionally, there is no disclosure in Nguyen et al. that the colorant is dissolved in the solvent.

In light of the above, it appears that Nguyen et al. meets the above cited limitation found in the present claims regarding the colorant.

Applicants also argue that there is no disclosure in Nguyen et al. that the copolymer comprises polymeric monomers as required in newly added claims 21-25.

However, attention is drawn to col.10, line 66 of Nguyen et al. that discloses that the copolymer is obtained from vinyl pyridine.

With respect to the presently claimed volume average particle diameter, it is noted that in order to meet the claim limitation regarding the volume average particle size, in addition to arguments by examiner utilizing Nguyen et al. alone to which applicants responded, alternatively, Nguyen et al. was also combined with Patel et al., which is also drawn to ink jet inks and discloses the use of polymer with volume average particle size of 0.1-1 μm in order to produce ink that will not clog printer nozzle. Applicants did not respond to this rejection and thus, the combination of Nguyen et al. with Patel et al. remains relevant against the present claims with respect to the volume average particle diameter.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

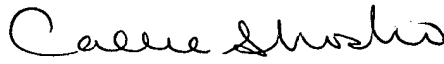
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/1/05